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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/802,612	03/17/2004	Joseph Barolak	584-36408US (102.77)	4575
41904	7590	03/17/2006	EXAMINER	
KEITH R. DERRINGTON SIMMONS & DERRINGTON, L.L.P FROST BANK BUILDING 6750 WEST LOOP SOUTH, SUITE 920 BELLAIRE, TX 77401			NEUDER, WILLIAM P	
			ART UNIT	PAPER NUMBER
			3672	

DATE MAILED: 03/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/802,612	BAROLAK ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	William P. Neuder	3672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-53 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-53 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>3/17/04</u> . | 6) <input type="checkbox"/> Other: ____.  |

***Claim Objections***

Claims 5, 15 and 16 are objected to because of the following informalities: "said magnetic coupling" should be changed to --said electro-magnetic coupling--.

Appropriate correction is required.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-13, 15, 19-31, 33, 37-45, 49 and 53 are rejected under 35 U.S.C. 102(b) as being anticipated by Chapman, III 3,724,589.

Chapman discloses a tool 15 disposed within a wellbore 16. The wellbore 16 can be cased or open hole. An electro-magnetic coupling device comprises a magnet 63 and a coil 62. The coupling is capable of coupling acoustic energy within the casing and an electric current communicable with the coil. As to claims 2 and 21, acoustic energy is induced through the casing. As to claims 3 and 22, acoustic energy received from the casing is recorded. As to claims 4 and 23, acoustic energy is induced through the casing and acoustic energy received from the casing is recorded. As to claim 5, the tool is in a housing. As to claims 6, 24 and 42, power supply 34 is provided. As to claims 7, 25 and 43, a computing circuit 49 is supplied. As to claims 8, 26 and 40, a permanent magnet 63B may be used. As to claims 9, 27 and 44, the coupling device

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forms waves. As to claims 10,28 and 41, the device is an electromagnetic acoustic transducer. As to claims 11 and 29, more than one device may be contained within the tool. As to claims 12 and 30, the devices can be disposed at the same location with respect to the axis. As to claims 13 and 31, the devices can be mounted at different locations. As to claims 15 and 33, a transmitter and a receiver are provided. As to claims 19 and 53, the device can be used to measure formation characteristics. As to claim 20, the device is considered a cement bond log apparatus. The energy passing through the coil magnetically couples the transmitter with the casing forming a transducerizing coupling. As to claim 37, the method comprises sensing the acoustic energy propagating through the casing and analyzing the energy. As to claim 38, the magnetic field and electrical field are formed by use of a transducer and the waves are received with a receiver. As to claim 39, the coupler comprises a magnet 63 and a coil 62. As to claim 45, device 15 is considered a sonde. As to claim 49, the transmitter and receiver are disposed at different locations along the length of the tool.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

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1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 14,16-18,32,34-36,46-48 and 50-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chapman, III.


As to claims 14 and 32, the transmitter and receiver of Chapman are mounted at different locations. It would have been considered obvious to mount the transmitter and receivers at the same location if one so desired. As to claims 16-18,34-36,46-48 and 50-52, the exact location and pattern of the transmitters and receivers would have been considered an obvious design choice arrived at by routine experimentation.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William P. Neuder whose telephone number is 571-272-7032. The examiner can normally be reached on Tuesday through Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David J. Bagnell can be reached on 571-272-6999. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



William P Neuder  
Primary Examiner  
Art Unit 3672

W.P.N.